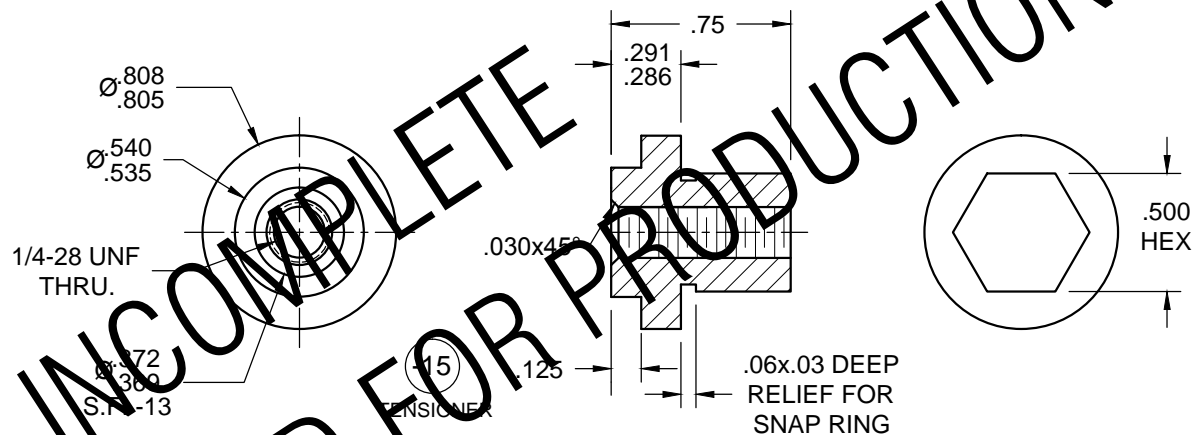


INCOMPLETE
NOT APPROVED FOR PRODUCTION

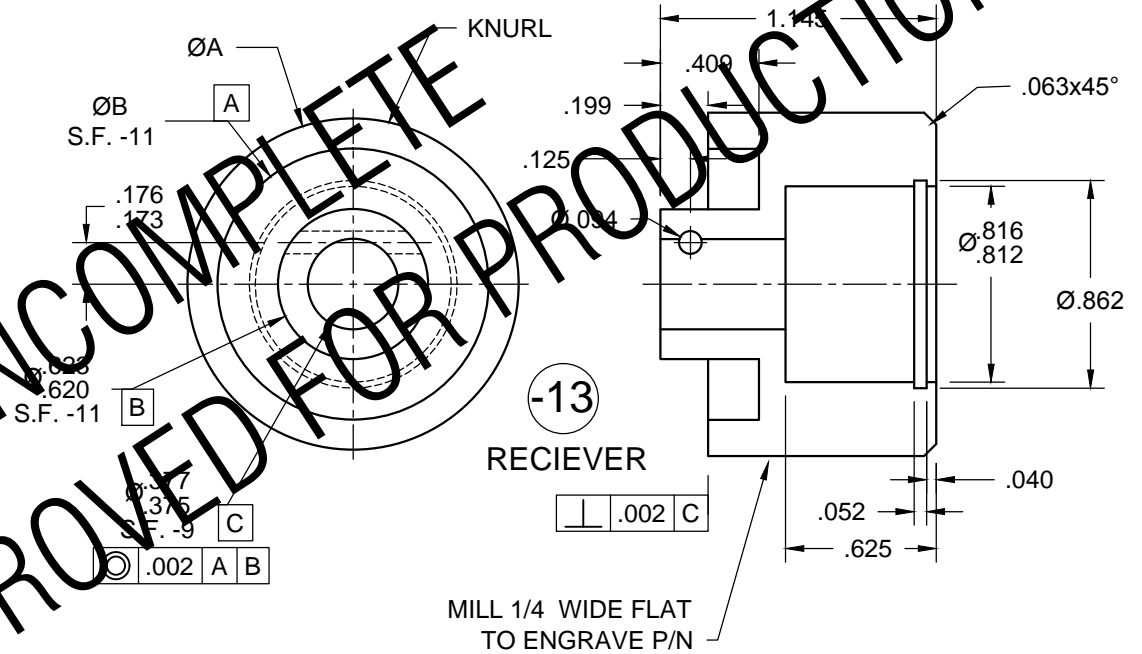


BEARING #	TOOL #	MATERIAL
BACB10FC	KSTBACB10FC SP	4140 Q&R RND. BAR Ø7/8 x 7/8

RED BARN MACHINE	
TITLE PORT. SWAGING TOOL; TENSIONER	
DWG NO. TOOL#(see chart)-15	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 X ± .1	DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC BLACK OXIDE USED ON BEARING SEE CHART
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 1-16-08
SHEET 9 of 9	

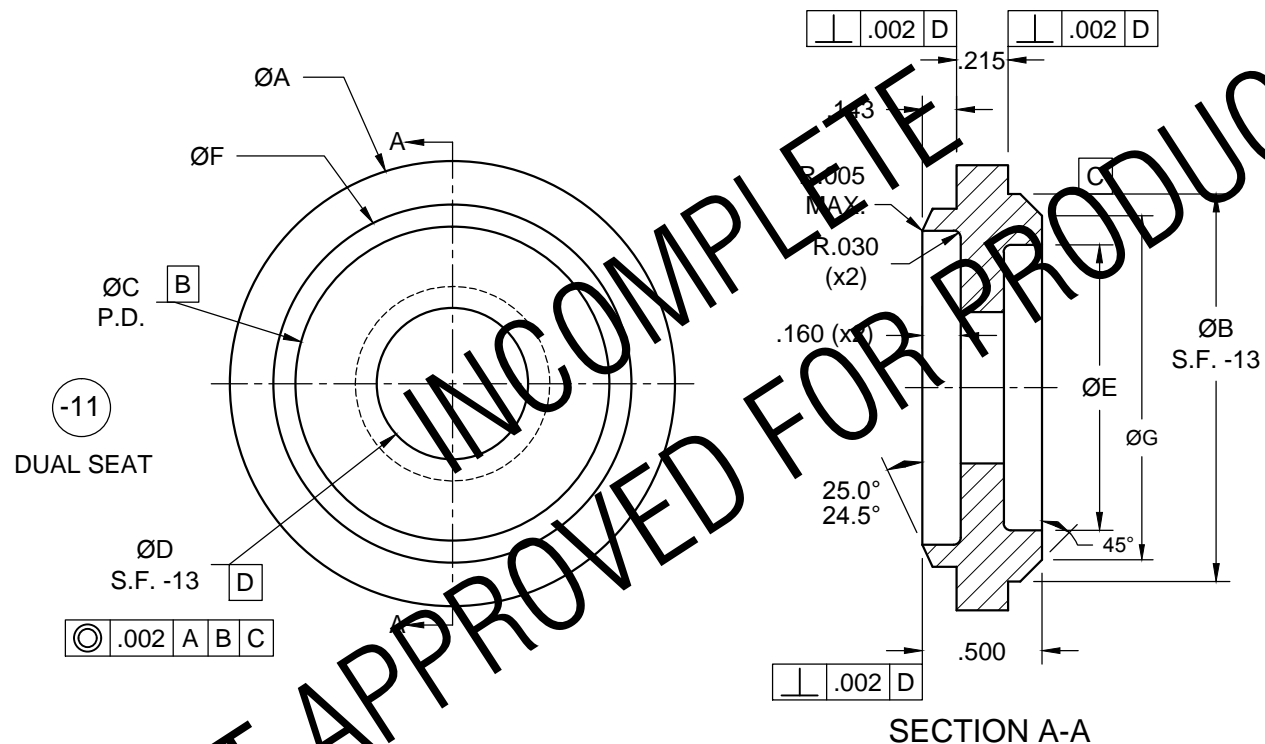
INCOMPLETE FOR PRODUCTION

NOT APPROVED




BEARING #	TOOL #	$\varnothing A$ +.010 -.010	$\varnothing B$ +.003 -.000	MATERIAL
BACB10FC	KSTBACB10FC SP	1.875	1.625	4140 Q&T RND.BAR $\varnothing 2$ x 1-1/4

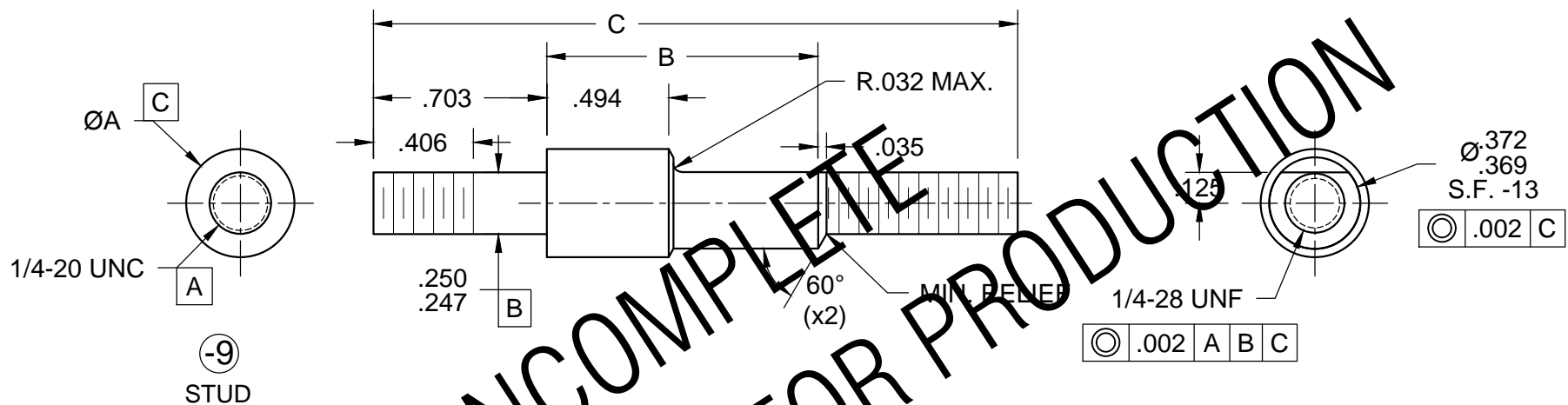
RED BARN MACHINE	
TITLE PORT. SWAGING TOOL; RECEIVER	
DWG NO. TOOL#(see chart)-13	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX $\pm .005$.XX $\pm .01$.X $\pm .1$	
FRACTIONS $\pm 1/32$ ANGLES $\pm 5^\circ$	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
DRAWN BY: PERRITT	
APPROVED	
HEAT TREAT	
FINISH SPEC BLACK OXIDE	
USED ON BEARING	
SEE CHART	
SCALE NTS	DATE 1-16-08
SHEET 8 of 9	




BEARING #	TOOL #	ØA +0.010 -0.020	ØB +0.000 -0.005	ØC +0.002 -0.000	ØD +0.003 -0.000	ØE +0.005 -0.005	ØF +0.000 -0.005	ØG +0.000 -0.002	MATERIAL
BACB10FC	KSTBACB10FC SP	1.860	1.560	1.313	1.125	1.193	1.496	1.437	REWORK SUPPLIED PART
									4140 Q&T RND. BAR Ø2 x 5/8

 RED BARN MACHINE	
TITLE PORT, SWAGING TOOL; DUAL SEAT	
DWG NO. TOOL#(see chart)-11	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± 5° .X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 1-16-08
SHEET 7 of 9	

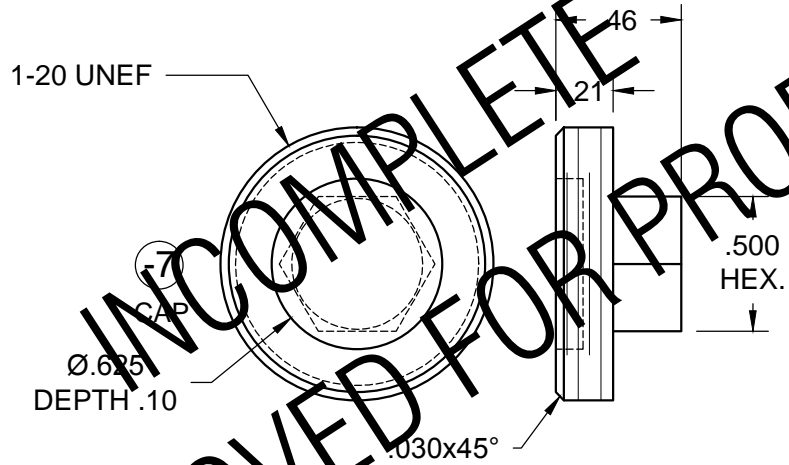
DRAWN BY: PERRITT
APPROVED
HEAT TREAT
FINISH SPEC BLACK OXIDE
USED ON BEARING
SEE CHART



BEARING #	TOOL #	ØA +.000 -.002	B +.010 -.010	C +.010 -.010	MATERIAL
BACB10FC	KSTBACB10FC SP	.743	1.250	2.625	4140 Q&T RND. BAR Ø3/4 x 2-7/8

 RED BARN MACHINE	
TITLE PORT.SWAGING TOOL; STUD	
DWG NO. TOOL#(see chart)-9	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
DECIMALS .XXX ± .005	FRACTIONS ± 1/32
.XX ± .01	ANGLES ± 5°
X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 1-16-08
SHEET 6 of 9	

NOT APPROVED FOR PRODUCTION



BEARING #	TOOL #		MATERIAL
BACB10FC	KSTBACB10FC SP		1018 RND. BAR Ø1 x 5/8

RB RED BARN MACHINE	
TITLE PORT. SWAGING TOOL; CAP	
DWG NO. TOOL#(see chart)-7	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC BLACK OXIDE USED ON BEARING SEE CHART
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 1-16-08
SHEET 5 of 9	

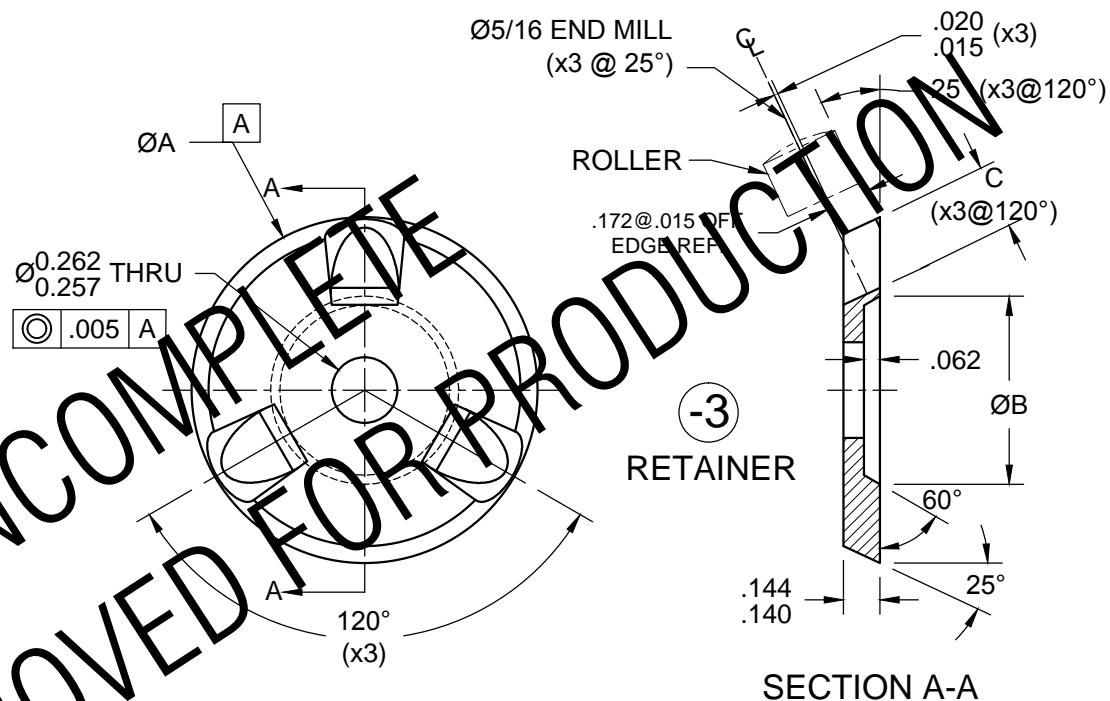
INCOMPLETE
NOT APPROVED FOR PRODUCTION



BEARING #	TOOL #	A +.001 -.001	B +.002 -.002	RC +.002 -.000	MATERIAL
BACB10FC12	KSTBACB10FC12 SF	.286	.181	.094	.310 MINUS GAUGE PIN MSC #89031009

RED BARN MACHINE	
TITLE PORT. SWAGING TOOL; ROLLER	
DWG NO. TOOL#(see chart)-5	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 FRACTIONS ± 1/32 .XX ± .01 ANGLES ± 5° .X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE NTS	DATE 1-16-08
SHEET 4 of 9	

- NOTES
1. BREAK ALL SHARP CORNERS (.015/.03).

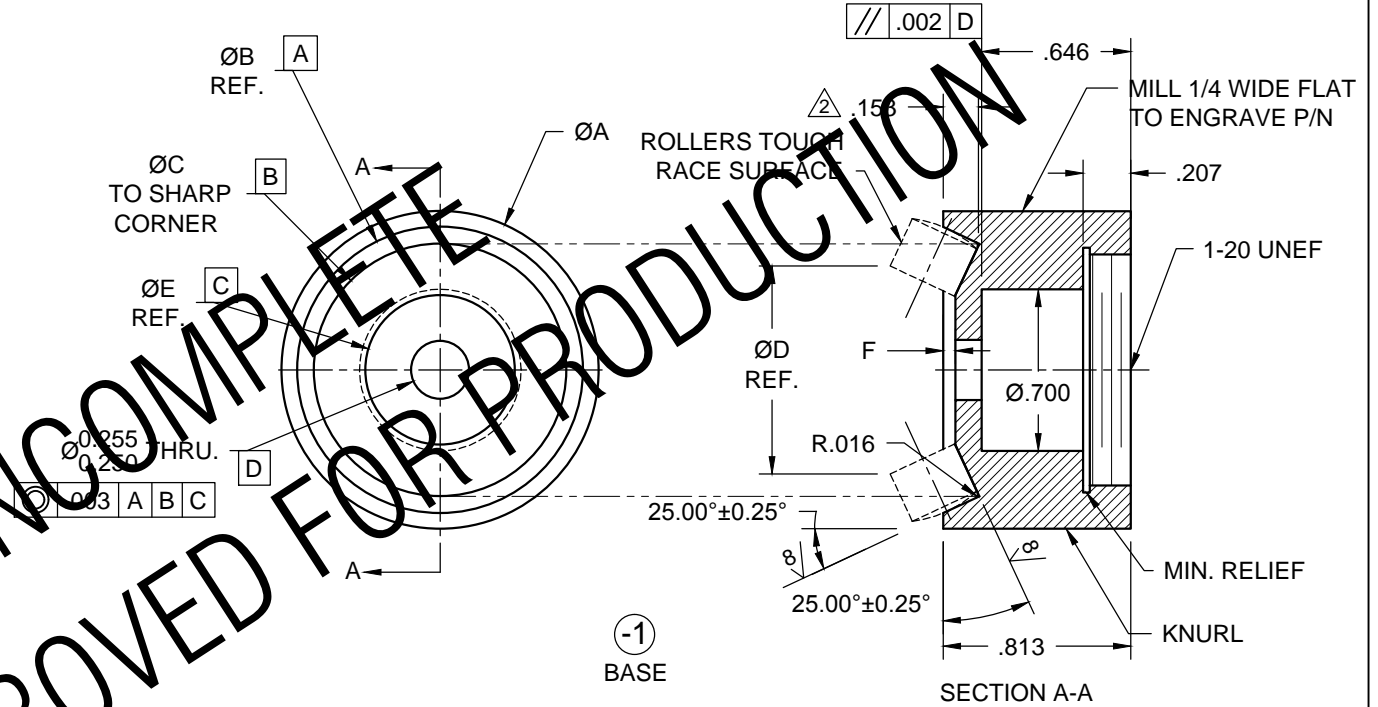


BEARING #	TOOL #	ØA +.002 -.002	ØB +.010 -.000	C +.005 -.005	P.D. REF.	MATERIAL
BACB10FC12	KSTBACB10FC SP12	1.679	1.032	.286	1.313	REWORK SUPPLIED PART

RED BARN MACHINE	
TITLE PORT. SWAGING TOOL; RETAINER	
DWG NO. TOOL#(see chart)-3	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	DRAWN BY: PERRITT APPROVED HEAT TREAT FINISH SPEC
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON BEARING SEE CHART
SCALE NTS	DATE 1-16-08 SHEET 3 of 9

NOTES

- BREAK ALL SHARP CORNERS (.015/.03).
- DIMENSION TO BOTTOM OF R.016=.153;
DIMENSION TO SHARP CORNER=.158.
- RACE SURFACE OF -1 BASE MUST BE
SMOOTH AND FREE OF GROOVES &
MACHINING MARKS.
- MUST HOLD ØC POSITION AND ANGLE
TOLERANCES TO MAINTAIN PITCH DIA..
- DO FIRST ARTICLE INSPECTION
BEFORE HEAT TREATING.



RED BARN MACHINE	
TITLE PORT. SWAGING TOOL; BASE	
DWG NO. TOOL#(see chart)-1	REV 3
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1 FRACTIONS ± 1/32 ANGLES ± 5°	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
DRAWN BY: PERRITT APPROVED:	
HEAT TREAT: RC 55-60 FINISH SPEC: BLACK OXIDE	
USED ON BEARING SEE CHART	
SCALE: NTS	DATE: 1-16-08 SHEET: 2 of 9

BEARING #	TOOL #	ØA + .000 - .020	ØB + .006 - .002	ØC + .006 - .002	ØD P.D. REF.	ØE + .006 - .002	F + .003 - .003	MATERIAL
BACB10FC12	KSTBACB10FC12 SP	1.960	1.805	1.659	1.313	1.093	.025	O-1 DRILL ROD Ø2 x 7/8

Diagram illustrating the exploded view of a mechanical assembly, showing various components and their relative positions. The components are labeled with callouts:

- 1
- 3
- 5
- 7
- 9
- 11
- 13
- 15
- 17
- 19
- 21
- 23
- 25 (x2)
- 27
- 29 (x2)
- 31

BEARINGS & SEALS

1. -5 ROLLERS AND -3 RETAINER MUST TURN SMOOTHLY ON -1 BASE WHEN ASSEMBLED.
2. FLAT END OF -5 ROLLERS MUST FACE THE CENTER OF TOOL WHEN ASSEMBLED.

ASSY QTY	ASSY QTY	B/O	PART #	UNIT QTY	DESCRIPTION	MATERIAL	B/O INFORMATION OR SPECIFICATIONS	Pg
			-1	1	BASE		SEE CHART	2
			-3	1	RETAINER		SEE CHART	3
			-5	3	ROLLER		SEE CHART	4
			-7	1	CAP		SEE CHART	5
			-9	1	STUD		SEE CHART	6
			-11	1	DUAL SEAT		SEE CHART	7
			-13	1	RECOVER		SEE CHART	8
			-15	1	TENSIONER		SEE CHART	9
		B/O	-17	1	DISTORTED THREAD LOCK NUT		1/4-20 UNC x 7/32 Ht. MCMMASTER-CARR #95065A150	1
		B/O	-19	1	CREST TO CREST FLAT WIRE WAVE SPRING	STEEL	.750 OD., .550 ID., WIRE THICK. .013, THREE TURNS SMALLEY RING CO. #CS075-H1	1
		B/O	-21	1	INTERNAL SNAP RING	STEEL	Ø7/8 BORE MCMMASTER-CARR #99142A410	1
		B/O	-23	1	THRUST BEARING (SPRING SIDE)	STEEL	Ø3/8 ID. x 13/16 OD. x 5/64 WIDTH APPLIED (TIMKEN #NTA-613)	1
		B/O	-25	2	BEARING WASHER	STEEL	Ø3/8 ID. x 13/16 OD. x 1/32 WIDTH APPLIED (TIMKEN #TRA-613)	1
		B/O	-27	1	THRUST BEARING	STEEL	Ø1/4 ID. x 11/16 OD. x 5/64 WIDTH APPLIED (TIMKEN #NTA-411)	1
		B/O	-29	2	BEARING WASHER	STEEL	Ø1/4 ID. x 11/16 OD. x 1/32 WIDTH APPLIED (TIMKEN #TRA-411)	1
		B/O	-31	1	ROLL PIN	STEEL	Ø3/32 x 3/8	N/S

 RED BARN MACHINE

TITLE	PORTABLE SWAGING TOOL
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DWG NO.	SEE CHART ABOVE FOR TPOI No.	REV	3
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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES ON:

DECIMALS	
.XXX ± .005	FRACTIONS ± 1/32
.XX ± .01	ANGLES ± 5°
.X ± .1	

DRAWN BY:	PERRITT
APPROVED	
HEAT TREAT	SEE PART
FINISH SPEC	SEE PART
	USED ON BEARING
	SEE CHART

UNLESS OTHERWISE SPECIFIED
1. BREAK ALL SHARP EDGES
.015 x 45° PR .015 R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE	NTS	DATE	1-16-08	SHEET	1 of 9
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NOT APPROVED FOR PRODUCTION



RED BARN MACHINE

NOT APPROVED FOR PRODUCTION

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

PART #	QTY	DESCRIPTION
-1	1	--

DRAWN BY: PERRITT	<div>RB</div> RED BARN MACHINE		
CHECKED	TITLE		
HEAT TREAT FINISH SPEC	TITLE		
USED ON MODEL ?	DWG NO. PART #		REV.
	SCALE NTS	DATE 1-28-06	SHEET 1 of 1

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ON:
DECIMALS
.XXX ± .005 FRACTIONS ± 1/32
.XX ± .01 ANGLES ± .5°
.X ± .1

UNLESS OTHERWISE SPECIFIED
1. BREAK ALL SHARP EDGES
.015 x 45° PR .015 R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING